

**UNITED STATES
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Patent Public Advisory Committee Quarterly Meeting

Subject Matter Eligibility

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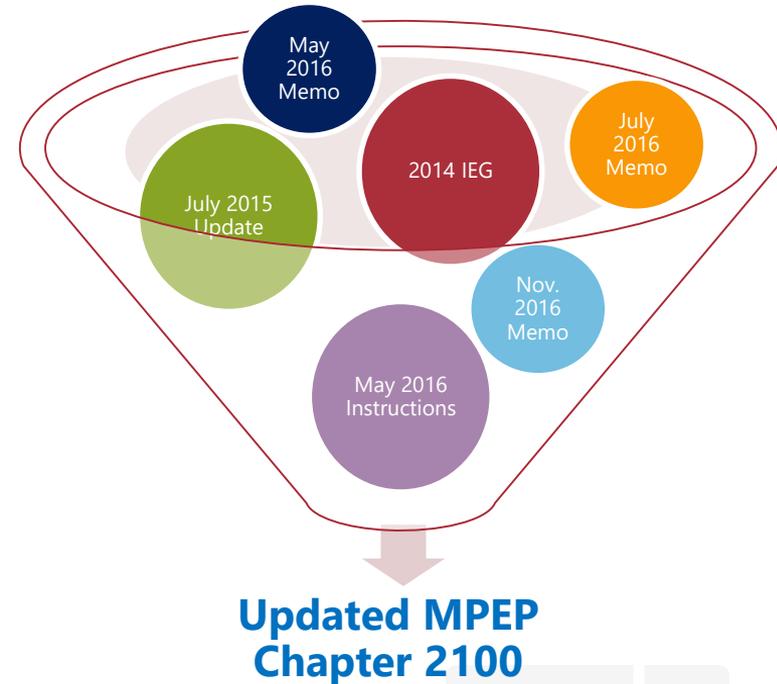
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Eligibility Guidance Is Now In the MPEP

- The MPEP has been updated to incorporate the 2014 Interim Eligibility Guidance (IEG) and its updates.
- MPEP now replaces the IEG and updates (as of August 2017).

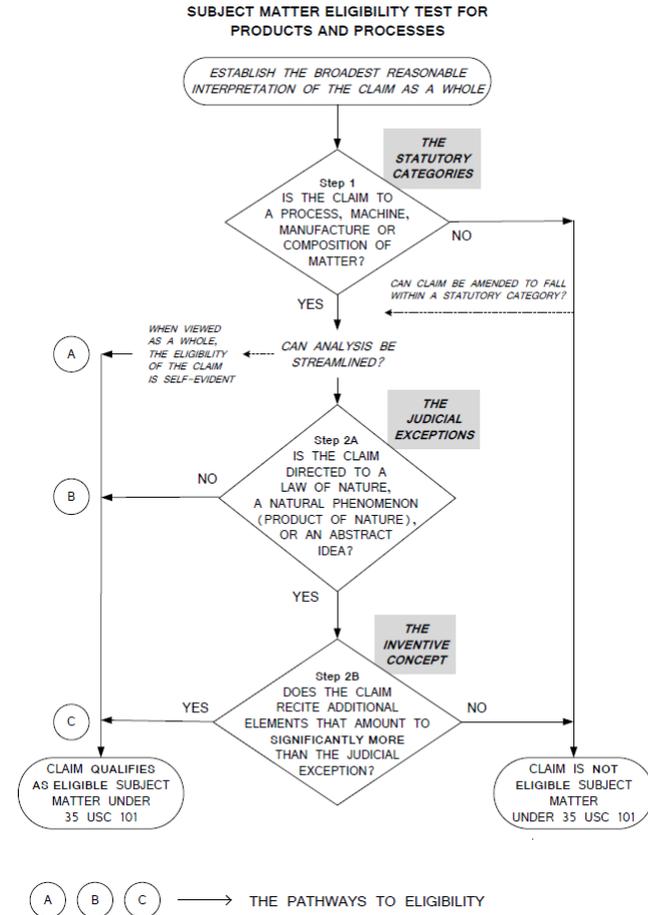


The Eligibility Analysis

- MPEP **2106** discusses the eligibility analysis.
- Explains the two criteria for subject matter eligibility:
 - statutory category (USPTO Step 1)
 - judicial exceptions (Step 2: the *Alice/Mayo* test)

Flowchart

- Sets forth the only analysis for examination of subject matter eligibility under 35 U.S.C. 101
- MPEP includes updated flowchart that:
 - adds labels for each step
 - indicates three pathways to eligibility (including streamlined analysis)



Step 1: Statutory Categories

- MPEP **2106.03** discusses Step 1

Step 2A: Directed To A Judicial Exception

- MPEP **2106.04** discusses Step 2A
 - Introduces the judicial exceptions, and explains the Supreme Court's concern about preempting basic tools of scientific and technological work
 - Sub-sections **2106.04(a) through 2106.04(c)** provide detailed information on the judicial exceptions.

Step 2B: Evaluating Significantly More

- MPEP **2106.05** discusses Step 2B
 - Explains the Supreme Court’s analysis of significantly more (also called an “inventive concept”)
 - Provides guidance on how to evaluate whether a claim encompasses an “inventive concept”
 - Sub-sections **2106.05(a) through 2106.05(h)** provide detailed information on the Step 2B considerations.

Streamlined Analysis

- MPEP **2106.06** discusses the Streamlined Analysis
 - Sub-section **2106.06(a)** provides examples of claims having self-evident eligibility.
 - Sub-section **2106.06(b)** provides examples of claims that have self-evident eligibility because they are directed to unambiguous improvements to a technology or to computer functionality.

Formulating Eligibility Rejections

- MPEP **2106.07** discusses how examiners should formulate and support subject matter eligibility rejections
 - Sub-section **2106.07(a)** concerns formulating a subject matter eligibility rejection.
 - Sub-section **2106.07(b)** concerns considering applicant's arguments to an eligibility rejection.
 - Sub-section **2106.07(c)** concerns clarifying the record both in rejections and when claims are found eligible.

QRS: Decisions Identifying Abstract Ideas

February 2018: Eligibility Quick Reference Sheet
Identifying Abstract Ideas (Part 2)

"An Idea 'Of Itself'" – MPEP 2106.04(a)(2) Part (III)

A. Concepts Relating To Data Comparisons That Can Be Performed Mentally Or Are Analogous To Human Mental Work

- Anonymous loan shopping (*Mortgage Grader*)
- Collecting and comparing known information (*Classen*)
- Comparing data to determine a risk level (*Perkin-Elmer*)[†]
- Comparing information regarding a sample or test subject to a control or target data (*Ambry/Myriad CAFC*)
- Comparing new and stored information and using rules to identify options (*Sinergene*)[†]
- Diagnosing an abnormal condition by performing clinical tests and thinking about the results (*Grams*)
- Obtaining and comparing intangible data (*CyberSource*)

B. Concepts Relating To Organizing Or Analyzing Information In A Way That Can Be Performed Mentally Or Is Analogous To Human Mental Work

- Collecting and analyzing information to detect misuse and notifying a user when misuse is detected (*FairWarning*)
- Collecting, displaying, and manipulating data (*Int. Ventures v. Cap One Financial*)
- Collecting information, analyzing it, and displaying certain results of the collection and analysis (*Electric Power Group, West View*)[†]
- Collection, storage, and recognition of data (*Smart Systems Innovations*)
- Creating an index, and using that index to search for and retrieve data (*Int. Ventures v. Erie Indemnity I*: '434 patent)
- Data recognition and storage (*Content Extraction*)
- Determining a price, using organizational and product group hierarchies (*Versata*)
- Encoding and decoding image data (*RecogniCorp*)
- Identification of unwanted files in a particular field (*Int.*)

Ventures v. Erie Indemnity II [†]

- Mental process for logic circuit design (*Synopsis*)
- Organizing and manipulating information through mathematical correlations (*Digitaltech*)
- Relaying mailing address data (*Return Mail*)
- Retaining information in navigation of online forms (*Internet Patents*)
- Storing, gathering, and analyzing data (*TDE Petroleum*)[†]
- Using categories to organize, store and transmit information (*Cyberfone*)[†]

C. Concepts Described As Ideas Having No Particular Concrete Or Tangible Form

- Assigning hair designs to balance head shape (*Brown*)[†]
- Determining a price, using organizational and product group hierarchies (*Versata*)
- Displaying an advertisement in exchange for access to copyrighted media (*Ultramercial*)

D. Other Concepts

- Delivering user-selected media content to portable devices (*Affinity Labs v. Amazon.com*)
- Gathering financial information of potential borrowers (*Carliologic*)[†]
- Generating a second menu from a first menu and sending the second menu to another location (*Ameranth*)
- Migration or transitioning of settings (*Transition*)[†]
- Providing out-of-region access to regional broadcast content (*Affinity Labs v. DirecTV*)
- Providing restricted access to resources (*Prism Techs.*)[†]
- Remotely accessing and retrieving user-specified information (*Int. Ventures v. Erie Indemnity I*: '002 patent)

- Quick Reference Sheet (QRS) groups abstract ideas to help examiners identify pertinent cases and find related information in the MPEP.
- Many cases on the QRS are explained in further detail in the MPEP.

"Mathematical Relationships / Formulas" – MPEP 2106.04(a)(2) Part (IV)

A. Concepts Relating To Mathematical Relationships Or Formulas

- The Arrhenius equation (*Diehr*)
- An algorithm for converting binary coded decimal to pure binary (*Benson*)
- An algorithm for calculating and comparing regions in space (*Coffelt*)[†]
- A formula describing certain electromagnetic standing wave phenomena (*Mackay Radio*)
- A formula for computing an alarm limit (*Flook*)
- A mathematical formula for hedging (*Bilski* claims 4-8, 10, 11)

B. Concepts Relating To Performing Mathematical Calculations

- An algorithm for calculating parameters indicating an abnormal condition (*Grams*)
- Calculating the difference between local and average data values (*Able*)
- Managing a stable value protected life insurance policy (*Bancorp*)
- Organizing and manipulating information through mathematical correlations (*Digitaltech*)
- Using an algorithm for determining the optimal number of visits by a business representative to a client (*Moucorps*)

QRS: Decisions Holding Claims Eligible

February 2018: Eligibility Quick Reference Sheet
Decisions Holding Claims Eligible

- QRS also identifies court decisions that held claims eligible, along with citations to related sections in the MPEP.
- Decisions are grouped by the court's rationale for holding the claims eligible. For example:
 - *Finjan* and *Core Wireless* are listed with other cases holding that the claims at issue were not directed to abstract ideas.
 - *BASCOM* is listed with other cases holding that the claims at issue recited an inventive concept.

Claims eligible in Step 2A		
<p>Claim is not directed to an abstract idea --- See MPEP 2106.04(a), 2106.04(a)(1) and 2106.06(b)</p> <ul style="list-style-type: none"> • <i>Core Wireless</i> (GUI for mobile devices that displays commonly accessed data on main menu) • <i>DDR Holdings</i> (matching website "look and feel") see Example 2 • <i>Enfish</i> (self-referential data table) • <i>Finjan v. Blue Coat Sys.</i> (virus scan that generates a security profile identifying both hostile and potentially hostile operations) • <i>McRO</i> (rules for lip sync and facial expression animation) • <i>Thales Visionix</i> (using sensors to more efficiently track an object on a moving platform) • <i>Trading Tech. v. CQG</i> † (GUI that prevents order entry at a changed price) • <i>Visual Memory</i> (enhanced computer memory system) 	<p>Claim is not directed to a law of nature or natural phenomenon --- See MPEP 2106.04(b)</p> <ul style="list-style-type: none"> • <i>Eibel Process</i> (gravity-fed paper machine) see Example 32 • <i>Rapid Lit. Mgmt. v. CellDirect</i> (cryopreserving liver cells) • <i>Tilghman</i> (method of hydrolyzing fat) see Example 33 	<p>Claim is not directed to a product of nature (because the claimed nature-based product has markedly different characteristics) --- See MPEP 2106.04(c)</p> <ul style="list-style-type: none"> • <i>Chakrabarty</i> (genetically modified bacterium) see Example 13 (NBP-5) • <i>Myriad</i> (cDNA with modified nucleotide sequence) see Example 15 (NBP-7)

Claims eligible in Step 2B (claim as a whole amounts to significantly more than the recited judicial exception, i.e., the claim recites an inventive concept) --- See MPEP 2106.05 and 2106.05(a) through (h)		
<ul style="list-style-type: none"> • <i>Abele</i> (tomographic scanning) • <i>Amdocs</i> (field enhancement in distributed network) • <i>BASCOM</i> (filtering Internet content) see Example 34 	<ul style="list-style-type: none"> • <i>Classen</i> (processing data about vaccination schedules & then vaccinating) • <i>Diehr</i> (rubber manufacturing) see Example 25 • <i>Mackay Radio</i> (antenna) 	<ul style="list-style-type: none"> • <i>Myriad CAFC</i> (screening method using transformed cells) • <i>RCT</i> (digital image processing) see Example 3 • <i>SIRF Tech</i> (GPS system) see Example 4

† indicates a non-precedential decision that was issued with a written opinion

Case Law Chart

- Case law chart provides additional information so examiners can look at the patent(s) and claim(s) at issue in the case.
- QRS & Chart are updated periodically (usually monthly).

Case Name	Decision Type	Citation	Decision Date	Patent(s) or App.No(s).	Title or General Subject Matter	Claim Type	Exception Type	Judicial Conclusion	Classification (USPC & CPC)
<i>Classen Immunotherapies Inc. v. Biogen IDEC</i>	Precedential	659 F.3d 1057, 100 U.S.P.Q.2d 1492 (Fed. Cir. 2011)	8/31/2011	6,638,739 6,420,139 5,723,283	Method and composition for an early vaccine to protect against both common infectious diseases and chronic immune mediated disorders	Methods	Abstract Idea	Eligible All claims in '739 and '139 Ineligible All claims in '283	435/69.3 A61K39/295
<i>Electric Power Group, LLC, v. Alstom</i>	Precedential	830 F.3d 1350, 119 U.S.P.Q.2d 1739 (Fed. Cir. 2016)	8/1/2016	8,401,710 8,060,259 7,233,843	Real-time monitoring of an electric power grid	Methods and systems	Abstract Idea	Ineligible '710: 9, 12 and 17 '259: 1, 5, 18, 21, 38, 49 and 53 '843: 4, 7, 9, 12, 19 and 24	700/291 G06F 19/00
<i>Enfish LLC v. Microsoft Corp.</i>	Precedential	822 F.3d 1327, 118 U.S.P.Q.2d 1684 (Fed. Cir. 2016)	5/12/2016	6,151,604 6,163,775	Improved information and storage system using a self-referential table	Product	n/a	Eligible '604: 17, 31 and 32 '775: 31 and 32	707/200 G06F 17/30 707/3 G06F 17/30
<i>Genetic Tech. Ltd. v. Merial LLC</i>	Precedential	818 F.3d 1369, 118 U.S.P.Q.2d 1541 (Fed. Cir. 2016)	4/8/2016	5,612,179	Intron sequence analysis method for detection of adjacent and remote locus alleles as haplotypes	Methods	Law of Nature	Ineligible Claims 1-25 and 33-36	435/6 C12Q 1/68

Amgen Memoranda

- *Amgen v. Sanofi*, 872 F.3d 1367 (Fed. Cir. 2017)
- Written description (February 22, 2018): expressly stated that the so-called “newly characterized antigen” test should not be used in determining whether there is adequate written description under 35 U.S.C. § 112(a) for a claim drawn to an antibody.
- Prior art under pre-AIA 35 U.S.C. § 102(e) (April 5, 2018): critical reference date under pre-AIA 35 U.S.C. § 102(e) of a U.S. patent, a U.S. patent application publication, as well as an international application publication having prior art effect under pre-AIA 35 U.S.C. § 102(e), may be the filing date of a relied upon provisional application **only** if at least one of the claims in the reference patent, patent application publication, or international application publication is supported by the written description of the provisional application in compliance with 35 U.S.C. § 112(1)/(a).

Finjan – Core Wireless Memorandum

- Addresses subject matter eligibility case law developments since August 31, 2017 through January of 2018.
- Discusses two decisions finding claims to software-related inventions patent eligible under 35 U.S.C. § 101 because they are not directed to an abstract idea.
 - *Finjan Inc. v. Blue Coat Systems, Inc.*, 879 F.3d 1299 (Fed. Cir. 2018)
 - *Core Wireless Licensing S.A.R.L., v. LG Electronics, Inc.*, 880 F.3d 1356 (Fed. Cir. 2018)
- Notes growing body of case law that software-based innovations can make “non-abstract improvements to computer technology” and be deemed patent-eligible subject matter at the first step of the *Alice/Mayo* analysis (USPTO Step 2A).
 - Claim reciting a software-related invention focused on improving computer technology not directed to an abstract idea.

Berkheimer Memorandum

- *Berkheimer* provides clarification regarding the inquiry into whether a claim limitation represents well-understood, routine, conventional activities (or elements) to a skilled artisan in the relevant field.
- Federal Circuit found that the question of whether certain claim limitations are well-understood, routine, conventional elements raised a disputed factual issue, which precluded summary judgment that all of the claims at issue were not patent eligible. See *Berkheimer v. HP Inc.*, 881 F.3d 1360 (Fed. Cir. 2018).

Berkheimer Memorandum

- Current MPEP § 2106.05(d)(I): an examiner should conclude that an element (or combination of elements) is well-understood, routine, conventional activity **only** when the examiner can readily conclude that the element(s) is widely prevalent or in common use in the relevant industry.
- Federal Circuit explain in *Berkheimer* "Whether a particular technology is well-understood, routine, and conventional goes beyond what was simply known in the prior art. The mere fact that something is disclosed in a piece of prior art, for example, does not mean it was well-understood, routine, and conventional." *Berkheimer*, 881 F.3d at 1369.

Berkheimer Memorandum

- Clarifies that a conclusion an element (or combination of elements) is well-understood, routine, conventional activity must be based upon an appropriately supported factual determination.
- Clarifies that the analysis as to whether an element (or combination of elements) is widely prevalent or in common use is the same as the analysis under 35 U.S.C. § 112(a) as to whether an element is so well-known that it need not be described in detail in the patent specification.
- The MPEP will be updated to incorporate the changes put into effect by *Berkheimer* memorandum.

Berkheimer Memorandum

- A conclusion an element (or combination of elements) is well-understood, routine, conventional activity must be supported by—
 - An express statement in the specification, or made by an applicant during prosecution, demonstrating the well-understood, routine, conventional nature of the additional element(s).
 - One or more of the court decisions discussed in MPEP § 2106.05(d)(II) noting the well-understood, routine, conventional nature of the additional element(s).
 - A publication demonstrating the well-understood, routine, conventional nature of the additional element(s).
 - Official notice of the well-understood, routine, conventional nature of the additional element(s)
 - May be used **only** when the examiner is certain that the additional element(s) represents well-understood, routine, conventional activity engaged in by those in the relevant art.

Berkheimer Memorandum

- If an applicant challenges the examiner's position that the additional element(s) is well-understood, routine, conventional activity,
 - the examiner should reevaluate whether the additional elements are in actuality well-understood, routine, conventional activities.
- If the examiner has taken official notice, and the applicant challenges (specifically stating that the element(s) is not well-understood, routine, conventional activity), the examiner must
 - then provide one of the first three factual bases from previous slide, or
 - provide an affidavit or declaration under 37 CFR 1.104(d)(2) setting forth specific factual statements and explanation.

Questions and Comments

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